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ABSTRACT

Herein are discussed the question of what is an incentive; the use of incentives in industry; the current patterns of reward and punishment in the schools; policy implications of the patterns of reward and punishment currently found in the schools; from an historical view, the incentive systems that the schools have tried out in the past, including scientific management and merit pay; and new incentive systems, including differentiated staffing and performance contracting. (Note: in the copy, the last line is missing on several pages.) (Author)

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INCENTIVE SYSTEMS FOR EDUCATIONAL PERSONNEL

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Final Report on an Investigation
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PREFACE

The purpose of this paper is to describe and analyze currently prevailing patterns of rewards and punishments provided for educational personnel in elementary and secondary school systems, and the efforts that are being made to change these patterns, so as to incite these personnel to enlarge their professional excellence and increase the amount and quality of learning that they impart to their students.

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I. WHAT IS AN INCENTIVE?

An incentive is anything which incites a being to action or effort. Implicit in every true incentive is a specific action or specific actions which the being is incited to perform; whether it's stated or not, every incentive is a stimulus to do x or y or z, or x and y and z. It's important to state this at the very beginning because educators, when they talk about incentives, often fail to mention the specific actions which the incentives are supposed to incite. This is a serious omission since incentives have no real meaning apart from the specific actions which they encourage.

Incentives are frequently talked about in psychology. Insofar as psychology is concerned with the ways that individuals can be coaxed into action by externalities, incentives (i.e. rewards and punishments) are central psychological concepts. Incentives are also central to economics, insofar as it is of significance to that discipline to discover the ways in which men can be stimulated to produce and consume. Economic uses of the term "incentive" eventually shade off into industrial uses, which are characterized by their limited, pragmatic character. In industry, the only kinds of incentives that are recognized when one uses the word "incentives" are those which induce profit-making activity.

One obvious point that can be made about incentives is that they can be either rewards or punishments. The chance to get a

Christmas bonus is one kind of incentive for an employee to do his job well; the chance of getting a pink slip in his pay envelope is another kind altogether; but still is an incentive. A reward is something of value given to a being for worthy behavior. It doesn't have to be, of course, but more often than not in our materialist society, a reward consists of money, or at least, something which has money value. A punishment is a penalty imposed on a being for doing something wrong. When a being has a reasonable expectation of a "reward" and does not receive it - as when a teacher hears a department head praise everyone in the department but herself - the failure to receive a reward may reasonably be construed as a punishment, although it might not necessarily be one, if the failure was not intended as a penalty for wrongdoing. Another obvious point about incentives is that when one considers giving incentives to incite someone to a certain action, one can always choose between relatively direct and indirect means. Thus, if I want you to go swim in the lake, I can say to you, "I'll give you a quarter if you go swim in the lake;" or on the other hand, I can say "I heard that George took a swim in the lake, and now he feels years younger."

This paper is about the various kinds of systematic incentives which educators are currently considering for the purpose of inciting school personnel to enlarge their professional excellence and increase the amount and quality of learning that they impart to their students. In order to give a fair picture of these incentive systems, it will be necessary to review as well the

kinds of rewards and punishments that school personnel currently receive, and to decide for what actions, if any, these rewards and punishments serve as incentives.

In connection with the two aforementioned "obvious points," it seems worthwhile to note that a large part of the forthcoming discussion will focus on rewards, rather than punishments. Even when teachers, through their unions, have been candid to point out that an incentive system threatens certain among them with punishments, authors of incentive systems have confined their discussions almost entirely to the offering of rewards. Moreover, even when the goals set for a proposed incentive system are admirably, even incautiously, broad, the specific objectives for which the incentives are designed are characteristically narrow, and the incentives themselves are almost always of the most direct and obvious nature. In these new systems, little time is wasted with any but supposedly "surefire" incentives, like money. Many interesting inferences could be drawn from these facts, but for now it should suffice to note the distinct industrial bias which focusing on rewards and on directness gives to these new systems. The bias is not accidental. It is undoubtedly from the experience of American industry that educators have borrowed their new incentive schemes.

II. INCENTIVES IN INDUSTRY

Industry generally has a single, uncompromising aim: the maximization of its profits. This single aim makes the setting of very specific and tangible objectives quite easy, and the setting of very direct incentives for the achievement of these objectives as well. Industry tends to follow this easy, clear path. The corporation is rare that will make progressive moral decisions, decision's which aren't thrust upon it by apparently unavoidable circumstance, decisions which might induce a climate of pride, trust, and responsibility among its employees. Whether or not following the easiest, clearest paths to profit in these matters is wise for American industry generally, or wise for specific American industries, are questions not worth belaboring here. More than enough soothsayers have already decried industry's "short-sighted lust for profits." It is at least possible that the lust derives not from short-sightedness, but from true far-sightedness, which tells industry to make hay while it can. Regardless, industrial leaders like to see fast, unambiguous results from their incentive systems.

The piecemeal wage and the commission wage are the simplest forms of consciously-designed incentive systems used in American business. In both, an employee's payment is based entirely on his production. But even in those predominant industries where the labor force is comprised chiefly of factory workers at a fixed hourly wage, the company may have at its disposal a formidable array of incentives with which to goad its workers to maximum

production. Some of these have become available through the implementation of new and carefully designed incentive plans (which may offer the basics of money or money value for extra production), but many have simply always existed, spread through the nation's industrial plants in a scrambled, uncoordinated way. Among the many incentives commonly available are promotion to supervisory positions, transfers to or from preferable work shifts, work units or lunch hours, allocation of overtime; and assurance or lack thereof of job security. Consciously-designed incentives are so pervasive in industry that it would be hard to imagine an American industrial plant which lacked them entirely; all the workers in a plant would have to be paid exactly the same amount, there would be no opportunities for promotion, job security would be tied up wholly to non-merit factors, and there would be no optional fringe benefits which weren't available to all workers. Likewise, it is hard to evaluate the impact of comprehensive incentive patterns on industrial models, although some efforts have been made to analyze the effectiveness of these relatively recent programs that offer bonuses for objectively observed high productivity. The considerable body of literature on this subject is interesting not so much when it strives for value judgments as when it simply outlines problems that have been encountered in industry incentive programs, and the ways in which those problems can be minimized. Thus, Bernard Bass[1] has mentioned the following problems:

a) Quality of production may suffer, if pay is hinged wholly on quantity of production and workers concentrate their

efforts exclusively on making the highest possible wage;

b) In attempting to prevent (a), a company may find that its added quality control and bookkeeping costs exceed the gains derived from increased worker production.

c) Dissension among the workers due to the application of an incentive pay plan may result in increased labor costs in both the short-term and long-term;

d) Employee-management relations may suffer - and long-term labor costs thereby increase - if employees sense that they are somehow being duped by the plan, e.g. if they see management setting rates downward to prevent employees from earning too much.

e) If production goals are not fully intelligible to the workers or if they are unable to assess the degree to which the goals are attained, workers may become like animals stimulated into neurotic behavior by experimental manipulation, feeling that they have been punished for their inability to discriminate a correct response; and labor costs may soar as a result.

Bass points out the following factors to which industrial management must give careful attention if their incentive plans are to be successful:

a) the nature of the particular incentive plan;

b) the kind of work involved;

c) the worker/management relationship;

d) the clarity of feedback results;

e) the quality of worker efforts;

f) the extent of worker participation in the design, implementation, and operation of the plan.

Lawler and Hackman[2] in a recent field experiment reached conclusions which especially back up the last of these points. They found that if a plan is to succeed, the workers affected by it must understand it, be committed to it, and believe that it will be administered fairly; and that these conditions will have the best chance of prevailing if the workers themselves help design the plan.

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Scientific Management

In 1962 Raymond Callahan published Education and the Cult of Efficiency (Chicago, 1962) which persuasively, if rather redundantly, argued that the introduction of industrial methods into public school administration during the period 1909-1930 brought tragedy to American education. A reaction to the 'cult of efficiency' set in after 1930, but substantial traces of the damage caused by it have remained, in the demeaning and pointless clerical tasks imposed on classroom teachers and in the illiberal, unscholarly education which occasionally stamps the minds of those thought qualified to be school administrators. Industry of course has grown older since the time of Andrew Carnegie. Its premises may have changed little, but it has had to cope with many new and unforseen problems, and some of its solutions would, to say the least, surprise the clever Scot. During these past forty years, the schools have probably changed less than industry. Now they face a backlog of problems which urgently await solutions. And

once again strong voices are heard in the educational world calling for the imitation of industry. It would be foolish to say that simply because education's last great borrowing from industry turned out badly, education should not borrow again. The new techniques to be borrowed must be judged on their own merit, and to do so is one of this paper's purposes. But it would be equally foolish not to ask those who propose new borrowings from industry meet a high burden of proof.

Fortunately, the nation's attitude toward industry today is considerably different from what it was during the first decades of this century. During those years, when America was first beginning to feel its might as a great industrial power, when it was first becoming aware of its extraordinary affluence, "Industry" was imagined to have almost god-like powers. "America's business is business," Calvin Coolidge said, and even while the public came to know the country's great capitalists as "robber barons," they knew them as the greatest men in the country. Today, there are grave doubts in the country about the role of private industry in the nation's affairs. Industry's prestige has sunk to some remarkable lows, and new problems such as worker apathy and strong foreign competition are causing increasing worry within the ranks of high management itself. Presumably during these next years, the broad spectrum of persons - teachers, administrators, board members, city councilmen, state and federal legislators, and taxpayers (just about everyone but the students themselves) - who have a greater or lesser say in setting policy for the nation's public schools, will be somewhat more wary than were their counter-

parts of 1910 and 1920 to bring the methods of the factories into the schools.

III. WHAT ARE THE CURRENT PATTERNS OF REWARD AND PUNISHMENT IN THE SCHOOLS? FOR WHAT KINDS OF ACTIONS DO THEY PROVIDE INCENTIVES?

No discussion of incentives in the schools can get very far without coming to the single salary schedule, the "lockstep" schedule, the schedule that for years teachers desired and fought for, and that can now be found almost universally in America's public schools. In a single salary schedule, all the teachers in a school district, regardless of productivity or teaching assignments, are paid a base salary derived from a fixed formula determined by accumulated experience and accumulated college credits. For part-time teaching, percentages of the base salary are paid. For extra, non-teaching duties, such as coaching and dramatics, there may be extra sums available.

There are several reasons for teachers to be pleased with the single salary schedule, some of them obvious, others of them, a little more complicated. A cynic might expect that in any large group of people there will be a majority who favor leveling. This same cynic would be quick to point out a democracy's instinct for exalting mediocrity. But the teacher's satisfaction can also be put in a much less cynical light. In the first place, there is the historical fact that before the adoption of single salary schedules, teachers commonly were obliged to bargain personally and secretly for their contracts. Such personal bargaining often induced fears of favoritism and betrayal, and uncomfortable working relations on the teaching staff. The single salary schedule does away with these problems. Moreover, in

recent years, teachers' salaries have gone up considerably, in comparison to the pay scales in other occupations. Benson[3] has noted that

> Between 1960 and 1965 the median family income in the United States rose from $5,991 to $6,882, an increase of 14.9 per cent. During these same years the average annual salary of teachers went up from $5,449 to $6,787, an increase of 24.5 per cent.

The rise has been especially marked in the lower range of the salary scale and in salaries paid to beginning teachers with the effect that the range of salary increments open to teachers (both in absolute terms and relative to other fields) has been reduced.

Until recently, the shortage of qualified personnel during a period of rapid enrollment expansion, has often been cited as a cause of the rise in teachers' salaries, as has the desire of certain "leader" communities to demonstrate their health, prosperity, and cultural superiority by authorizing big school budgets. Many communities have found it necessary to stay competitive with these "leaders" in order to attract and hold qualified personnel, as teachers in salary bargaining have commonly framed their expectations in terms of salary levels in "comparable" districts. Neither of these reasons for the rise in teachers' salaries have much to do with the single salary schedule *per se*, but teachers can hardly be blamed for not wanting to rock the boat. There is a third cause to which the rise in teachers' salaries can be partly attributed: the rise of teachers' unions and the growth of collective bargaining.

As the supply of teachers in many localities has grown to an abundance, and as many formerly generous suburbanites have begun to frown and tighten their belts, union militancy and collective bargaining may be the only forces for significantly higher salaries that teachers have in the 1970's. It is difficult to dispute the proposition that the single-salary schedule, with its emphasis on treating everybody alike, on eliminating dissension within teaching ranks, on group unity, facilitates the collective bargaining process, and thereby helps get higher pay for teachers.

What kinds of incentives does the single salary schedule offer? An answer comes easily if one confines oneself to a school district where the salaries are higher than those in neighboring districts. For such affluent districts, a teacher will have an incentive to do whatever is necessary to get and keep a job, because the teacher knows that he/she cannot go to a neighboring district and by dint of meritorious service earn as much as he/she could earn by dint of the mere fact of employment in the more affluent district. Of course "whatever is necessary to get and keep a job" will vary greatly from district to district. It may mean turning out kids who score high on tests; it may mean looking good when the department head comes around; it may mean making friends with the principal; it may mean all three and more.

For school districts generally, answers are less certain. It would appear that there are only two incentives that the single salary schedule offers. The first of these is simply

to stay in teaching. There is at least some small incentive to stay on in the thought that two years from now you'll be making more than you currently are, and five years from now even more than that. Whether there's much correlation between sheer experience and teacher productivity is one of the great imponderables, made so by the inability of those who disagree over the value of experience to agree on criteria for measuring productivity. Thus, it's hard to say to what extent the incentives to stay on the job, provided by the single salary schedule, are also incentives to excellent education. There are undoubtedly many teachers who grow better with seasoning, but there are also undoubtedly some who somewhere in their middle age lose their zest for life and learning, and some as well who never had such zest, and came into teaching in the first place because teaching provided an easy, secure job. The question is complicated by the fact that while single salary schedules almost always offer some incentive to stay in teaching, the incentives are in most cases appallingly weak. In nearly all other occupations requiring education comparable to that required of teachers, the salary range from start to finish is far greater than what teachers can look forward to. In part (along with marriage, pregnancy, children), this narrowness of salary range must account for the high dropout rate among teachers: each year 11% leave the profession; the rate goes up to 18% if you count teachers who change schools.[4] Of course it is a matter of dispute how many teachers among the group which drops out due to salary consideration are those who might be rated high in terms of quality and effectiveness.

Charles Benson[5] has pointed out that the inability of educators to prove teacher worth by objective standards has made it difficult for them to show school boards that they are losing invaluable teachers due to low salary expectations, and thereby to prompt school boards to raise maximum salaries. It is much easier to make a case for raising minimum salaries, by pointing to the raw need for teachers' bodies to fill classrooms. Thus the problem is perpetuated.

The other main incentive offered teachers by the single salary schedule is to take graduate courses. Simply doing so increases a teacher's salary. Benson[6] has complained that in most salary schedules this incentive isn't strong enough. He has said:

> Intuitively, one feels that the contribution of years of experience in raising the performance level of teachers, unless that experience is complemented by continued study and training, is likely to become rather modest after, say, seven or eight years of work. On the other hand, further study and training, provided it is relevant to the activities of the teacher in the classroom, is probably conducive to higher performance for almost all individuals. Yet the single salary schedule is based far more on seniority than on training.

He has pointed to the Scarsdale schedule, considered not far from ideal by various teachers' groups, and has criticized the fact that a teacher with a B.A., simply by remaining at his job for fifteen years, could gain $5,063 in pay, whereas if he went out and got a master's degree plus 60 semester hours, he could gain only $3,050.[7]

Even if one accepts Benson's arguments on their face, it is

possible to question whether the bulk of courses that teachers take to raise their salaries are truly "relevant to the activities of the teacher in the classroom," and whether the bulk of courses they take are in fact taken when Benson implies that they would be most useful, "after, say, seven or eight years of work." In regard to the former point, few teacher contracts have provisions which strictly enforce the criterion of relevancy, and the syndrome of teachers taking courses in what Irvin Nikolai of the Southwestern Cooperative Educational Laboratory[8] generically calls "underwater tomato picking" is well-known. In regard to the latter point, few contracts provide special incentives for teachers to take courses after, as opposed to before, the completion of their first decade in the profession, and it seems certain (although I've come across no statistics on the subject) that teachers pile up most of their credits beyond the B.A. during those early years when they would have plenty to learn even if they focused all their energies on their classroom experience.

And it is even possible to question Benson's argument on its face. Should there really be still stronger incentives for teachers to accumulate graduate credits, while the salary schedule under which they operate provides them with so few incentives to do anything else? Perhaps a few years ago, when confidence in the efficacy of our nation's universities was rather higher than it is now, it would have been easier to give an unequivocal affirmative answer. But few can doubt that we are now experiencing a widespread lapse of faith in the worth of much that goes on in

higher education, and that that lapse of faith spreads deep into the universities themselves. Without objecting to those incentives already offered for graduate study, one can now at least have doubts whether further incentives should be provided for teachers to take "relevant" courses, if no more qualitatively discriminatory criteria are to be applied than that rather watery one.

We have now discussed the incentive to stay on in the profession and the incentive to take graduate courses. Are there any incentives which the single salary schedule offers directly to incite professional excellence and high productivity? An uncounted number of teachers would certainly like to think there are. They would like to think that the single salary schedule attracts to the profession those who are intellectually and temperamentally well-suited for teaching, those who prefer to think that the quality of their work cannot be wholly measured in objective terms nor directly rewarded with precise increments of money: those who would be offended to work in an environment where "who is getting how much" becomes a topic of worry and discussion and where there is a sense that someone with a cash register in the back of his head might walk in to inspect a class at any moment. Of course this is a caricature of what most of the recently proposed incentive systems would be like, but it is undeniable that many teachers view them this way, and view anyone who could function maximally in that kind of system as spiritually unfit for the fine points of teaching. It must be pointed out first of all that those teachers who view teaching

this way are usually ones who believe that there can be no valid objective measure of teaching excellence. While this belief has a certain plausibility to it, it remains true that in the face of educators who deny any necessary correlation between teaching excellence and distaste for money competition (and also in the face of those educators who wish the teaching profession contained more of those persons who are "eager to make it in the big world"), these teachers have little "hard" proof that they can offer. Moreover it is at least as reasonable to suppose that no particular personality trait, except perhaps for a certain elemental concern with the lives of others, has much of an exclusive relationship with teaching excellence. Excellent teachers can be found in all different types of personalities, including personalities that function well in money competition. And it must not be forgotten that even if the single salary schedule does by its very nature attract into teaching those who are spiritually best qualified for it, it nevertheless offers little incentive for excellence and high productivity once these people are embarked on their careers.

I should now like to consider the other kinds of rewards and punishments that the schools provide for their personnel. Fringe benefits to the single salary schedule might be mentioned in passing. These include insurance, sabbaticals, retirement pay, and a long list of other possible items. As incentives, they work pretty much as the single salary schedule works, and there seems to be no need to elaborate on them further.

The chance of earning official commendation, such as "best gym teacher of the year," can under the right conditions be a

very effective incentive for teachers to excel. Such commendations are given all the time, some in a private manner, some in a relatively public one. Their effectiveness as incentives obviously varies greatly, depending on the recipient, the offeror, and the nature of the commendation. But it is probably safe to say that as a rule such things would mean more to a teacher than to a guy on the assembly line, or even more than to a lawyer. It is of course difficult to generalize very much about the personalities of school teachers. But regardless of personality, teachers by and large consider themselves to be professionals, and as such they believe their competence to be important. Recognition of competence and commendation are abstract rewards which are likely to be valued more highly by teachers than factory workers. And commendation is probably more important to a teacher than a lawyer because a lawyer knows that in his profession words are dismally cheap, and that hard cash is available whenever a superior intends genuine praise.

The chance of suffering official criticism is probably a much less predictable incentive for teacher excellence than the chance of earning official commendation, since ego considerations often prevent a teacher (or anyone else, for that matter) from taking rational steps to avoid criticism. Teacher resentment may result from it as often as teacher excellence. Nevertheless it is undoubtedly true that a great many school administrators systematically use the threat of criticism as an incentive for teachers to excel.

All schools have a certain number of 'plum' assignments -

choice students, choice grades, school committees, office space, clerical help - which may serve as incentives for teachers. Whether or not they do serve as incentives, and, if they do, what they serve as incentives for, depends on how they are deployed. It's possible to imagine the existence of a tacit and yet still rather strict merit system for one or more of these plums, where administrative evaluation of teacher competence was well-known to serve as the sole guide for their assignment. Such a system might provide quite a substantial incentive for high teacher productivity. But I am aware of no single salary schedule school district which actually implements such a system, even tacitly. Usually one can expect instead a blend of all the old variables - general reputations, seniority, school politics, favoritism - in deciding who gets the plums. Usually one can also expect, in such covert decision-making, that those who don't receive any plums will think that the decision-making was rather more corrupt than it actually was. Thus, from district to district, plum assignments can serve as incentives to earn a good reputation (by self-assertion or otherwise), to stay in the school system, to gain political leverage within the school, to get in good with the principal, or to forget about the whole thing and go back to the classroom, resigned and maybe slightly resentful.

"Good" teachers may sometimes be encouraged and given opportunities to become supervisors and administrators, personnel who earn substantially more money than teachers and have more authority in the school hierarchies. Benson[9] among others has pointed to the teaching profession's misfortune in this regard. First of

all, many of those teachers who are among the most competent and ambitious are promoted right out of the profession. This applies especially to male teachers with families, who are, even without this extra drain on their numbers, often considered to be in short supply and high demand in the schools, especially in the elementary schools. Second of all, an even greater number of ambitious teachers than those actually promoted are given an incentive to concentrate not on the development of their teaching skills, but instead, on what they suppose to be administrative skills - a firm hand, a strong voice, efficient books, et cetera - to enhance the likelihood of their promotion.

IV. A SUMMARY OF THE POLICY IMPLICATIONS OF THE PATTERNS OF REWARD AND PUNISHMENT CURRENTLY FOUND IN SCHOOLS

a) Once they are embarked upon their careers, teachers as a rule do not receive strong, direct incentives to excel and achieve high productivity.

b) The high minima/low maxima single salary schedules commonly in use in the schools may attract a fair range of talents into the profession in the first place, but the most ambitious of these talents (especially men with families) may soon find the schedules stultifying, and leave the profession. This phenomenon may in recent years have been accentuated, as maximum salaries have not risen commensurately with minimum salaries.

c) Non-competitive people are attracted to teaching. This is a very old dictum, but there is little in the current patterns of reward and punishment which would tend to alter it. Whether this non-competitiveness matters at all, are questions that can only be answered by reference to specific educational goals and objectives. Educators who suggest that it is important to bring the widest variety of adult personality types into the learning process, simply in order "to give the child a better sense of the world," may be operating on premises that are quite naive.

d) Those competitive people who are attracted to teaching, if they also show some ability, may quite rapidly be promoted out of the profession.

e) Teachers may spend a good deal of time taking

graduate courses which raise their salaries without commensurately raising their productivity as teachers.

f) Teachers unions (and arguably the goals for which they stand) tend to flourish in a situation where there are few rewards and punishments to differentiate one teacher from another, and may therefore be expected to exercise their institutional bias in favor of preserving and even expanding such relatively incentive-less schemes as the single salary pay schedule. Thus, the current pattern of rewards and punishments in the nation's schools feed powerful forces outside itself that nevertheless tend to perpetuate it.

V. AN HISTORICAL VIEW: WHAT INCENTIVE SYSTEMS, DESIGNED DIRECTLY TO SECURE [illegible] EXCELLENCE AND HIGH PRODUCTIVITY, HAVE THE SCHOOLS TRIED OUT IN THE PAST?

"Scientific Management"

I have already mentioned Raymond Callahan and his book "Education and the Cult of Efficiency." It seems worthwhile now to describe in a little detail the movement which according to his argument brought great misfortune to the American schools.[10]

Scientific management wasn't in the first instance a movement within education at all. Its beginnings were in industry. Its founder, Frederick W. Taylor, astounded the public when his theories first came to their attention in 1910. In 1910 new industrial competition from Germany and the need for conservation were central concerns. A decade of muckraking had gone by and yet industry was still America's great pride. The grave threats to the nation implicit in German might and the possible depletion of our own resources were apparent to all. Scientific management was presented as a way to meet both problems head on. Its claim was that by careful study of industrial processes its creator, Frederick W. Taylor, had devised means of saving millions and millions of dollars for American industry. To the public, scientific management appeared as a startling piece of management technology devised by good old American Ingenuity, and it was widely heralded, even before its effectiveness was fully proved.

The four principals of scientific management were as follows:

1) Develop a science for each element of a man's work,

to replace old rule of thumb methods;

2) Scientifically select, train and develop workmen;

3) Cooperate heartily with the men to make sure that work is done in accord with scientific principles;

4) Divide both work and responsibility almost equally between workmen and management, so that, instead of workmen undertaking all of both, management would now undertake to do all the jobs for which it was better suited than the workman.

This last principle was really the heart of scientific management, and was well illustrated by Frederick Taylor's often quoted remark to a mechanic working under him: "You're not supposed to think, there are other people paid for thinking around here." Thus the efficiency experts entered American industry for the first time, and with them their time and motion studies, and their bonuses for workmen who did inordinate amounts of work.

Scientific management was shown to produce some favorable results, and the public was enamored. Soon there was clamor for it to spread to other fields - the military, the law, the family, the church, and, finally, to the school.

In 1910, the nation's public schools, despite faults, had much progress to be proud of. They had a great institutional vision - free public education from kindergarten through college for all - and they had developed an institutional framework capable of realizing that vision. Nevertheless, in the years immediately following 1910, they suffered repeated rounds of scathing criticism, all of it based on the proposition that they were woefully inefficient, and much in need of the economic

miracles that scientific management was capable of performing. Ever since the invention of their job, American school superintendents had been heavily dependent on the favor of the local school boards and taxpayers, and now, after a great deal of resistance, they bent to the public demand for money-saving Science.

The big year was 1913.

In 1913 Frank Spaulding, superintendent of the Newton (Mass.) Public Schools, appeared before the national NEA convention and described how he had introduced scientific management to the Newton schools. It was a whole new way to run schools. He showed that by statistical analysis of certain isolated variables it had been possible to determine that Newton school 9, for instance, was superior to Newton school 11 by 17%, or at least that it was 17% more productive. He showed how it could be discovered that it cost the Newton schools just as much to give 5.9 pupil recitations in Greek as to give 23.8 pupil recitations in French. And most important of all, he showed how statistics such as these could lead him as superintendent to make decisions about the education to be offered in the Newton schools. He explained that while of course it was impossible to say which was absolutely more valuable, Greek or French, he was nevertheless convinced that Newton shouldn't purchase any more Greek instruction at 5.9 pupil recitations per dollar. Either the price goes down, or we invest in something else, Spaulding said. He also said that the financial and educational aspects of an administrator's job were inseparable, and that it would be best

if they were handled by the same person. Frank Spaulding was widely hailed as an innovator.

During the same year, Franklin Bobbitt wrote a book called "The Supervision of the City Schools," which recommended the widespread and intensive use of objective tests to determine just what kinds of teaching techniques were most efficient, and which also recommended that administrators require teachers to employ whichever techniques the efficiency tests showed to be best. Bobbitt imagined the school administrator in the mold of Taylor's plant manager, standing over the teacher's shoulder, all but telling him not to think. Bobbitt too was widely hailed, especially by tax-paying businessmen. His was an educational theory they could really understand.

Thus scientific management came to the public schools. Within five years it was widespread, as superintendents in town after town discovered that the way to defend their schools, their jobs, and themselves against the onslaught of the businessmen on the school boards and tax rolls was to go scientific, to embrace efficiency warmly. Among the major changes which scientific management brought - and they were indeed major - were the efficiency experts, offering their consulting services at a high fee; the elaborate bookkeeping, to keep track of every expenditure of time and thumbtacks; the platoon system, a novel way to fill every room in the school all day long, by having half the pupils in art and music and the like, while the other half were in regular class, awaiting the bell when they would all exchange rooms; the Thorndike tests and a host of other new standardized objective

models, so that close track could be kept of student progress and teacher productivity; the teacher evaluation forms, whereby it could be discovered by consideration of thirty or so variables exactly how much a teacher was worth; and finally, the annual survey, in which every aspect of the whole school system was analyzed in terms of efficiency, an instrument carefully designed to convey to the school board the notion that their superintendent was an able administrator indeed.

As a result, educational values were widely submerged. By 1920 there was widespread teacher resentment to scientific management, but teachers in those days had no tenure, and only in a few cities like Chicago and New York, where teachers unions already existed, were they able to resist successfully.

It is rather obvious how scientific management intended to provide incentives for high productivity in the schools. From the very top of the chain of command, the word went forth, implicitly or explicity, that the schools would turn out passing students at an acceptably low price, or else. No doubt there was a good deal of initial scurrying about in school systems that adopted scientific management. If his students flunked, a teacher's efficiency rating suffered. But whether that kind of incentive spurred true productivity is another matter altogether. In the first place, the widespread resentment that scientific management engendered no doubt took its toll in ways that final exam grades and teacher evaluation sheets failed to measure. Secondly, the apparatus needed to make scientific management operational was awkward and costly. It is true that administrators were quick

to emphasize that the heavy bookkeeping costs were more than offset by the savings made possible thereby. But the kinds of educational losses brought about by teachers teaching to tests, created without any coherent vision of educational goals, were completely invisible to the methods of scientific management.

Indeed the worst shortcoming - the truly terrible shortcoming - of scientific management was that it enticed school administrators into ways of thinking in which educational goals were completely irrelevant. Undoubtedly implicit in the minds of many administrators who first embraced scientific management were some very obvious educational goals: for example, graduate students into productive citizens by getting them to study hard enough to pass a certain number of courses. Thus, it did not trouble many of them to eliminate advanced language courses, if advanced language courses cost substantially more than intermediate ones, or to eliminate Greek if it couldn't be offered at the same cost as French. They either did not notice or did not care about these or other distortions of educational purpose that came about, howsoever accidentally or coincidentally, when all the aspects of school life - pens, pencils, rooms, books, the hours of the school day, the teachers themselves and all their daily operations - were reduced to dollars and cents value.

After 1929 a reaction against scientific management set in. Voices could finally be heard saying most of the things which Mr. Callahan said in 1962. But vestiges of the efficiency mania remain. Scientific management serves as a lesson of some bad things that can happen when an enthusiastic and comprehensive

program, designed to create formidable incentives for "productivity" in the schools, operates in a vacuum of educational purpose.

Merit Pay

So-called "merit pay" schemes had a considerable vogue among school administrators during the 1960's, a vogue which by now has almost entirely passed. The theory was very simple: there should be pay differentials among teachers based upon their evaluated worth as a teacher. It was believed that the productivity of teaching faculties would rise if teachers believed that they could earn more money for doing an excellent job than for doing a mediocre job. Merit pay schemes all assumed a strong relationship between motivation and monetary reward. Further they assumed that the kind of obvious, blatant pressure generated by monetary rewards could work without hindering the delicate psychological mechanisms which teachers commonly bring to their classrooms.[11]

Merit pay was designed to cope with two problems that seemed to become acute shortly after 1960. School administrators became increasingly aware that the teaching profession needed greater numbers of young college graduates of high standing, and that merit pay presented one way of making a teaching career financially more competitive with other careers without forcing the schools to spend drastically more money on salaries. Administrators also became aware of snowballing demoralization in many of the nation's inner city schools, where, in increasing numbers, teachers as well as students were simply giving up. Merit pay was thus also

conceived as a way to get disenchanted teachers to care again. By the early 1960's, experiments in merit pay had been implemented in a wide variety of American schools.

The experiments themselves came in a wide variety. In some, a good deal of money and prestige came to hinge on the merit ratings. In others, such as those in Houston, Texas and Ithaca, New York, the experiments were very much ancillary to the regular single salary schedule. Thus in Houston,[12] for example, a so-called "super-maximum" system was employed. Only teachers who had already taught twelve years, and thereby had reached the maximum pay levels which seniority increments allowed, were eligible to apply for merit pay. And even then, merit pay was limited to a $200 increment on a $7,800 salary. Ithaca also had a "super-maximum" system. For several years, until a new school board got wise to what was happening, not a single teacher failed to receive the administrative recommendation which was required in order to get the merit "incentive."[13]

A history of the merit pay movement shows a steady dilution of its original goals. Within the space of a very few years, articles on the subject took on a distinctly defensive tone. Thus James Mason's article about the Ithaca schools are entitled "How to Rescue a Merit Pay Plan,"[14] and show how the Ithaca experiment in its most advanced form was giving "merit pay" awards for such input oriented factors as education, experience, professional growth and training! When "Clearinghouse" in September, 1965[15] ran a proposal concerning a <u>wholly voluntary</u> merit pay plan, probably the most innocuous plan imaginable, it nevertheless felt

compelled to preface the article with a squib explaining how the magazine had no intention of stirring up an old controversy. Merit pay proved to be a very unpopular concept indeed.

One need look no further than the teaching staffs of the nation's schools to know why merit pay failed. The teachers, in overwhelming numbers, didn't like it. Both as individuals and through their associations, the NEA and AFT, they roundly condemned it. And their opposition exacerbated technical difficulties which were already latent in every merit pay scheme. The teachers' central claim was that neither suitable criteria nor unbiased methods of judgment could be developed for use in merit pay programs. In support of their claim they used every form of resistance cited by Anthony Downs[16] as available for teachers desiring to oppose evaluation schemes:

> The most obvious is opposing any evaluation schemes at all. More subtle is limiting the scope of such schemes. A third is insuring that control over the design and operation of the schemes is maintained by members of the organizations to be evaluated, so that they can exclude the most threatening forms of evaluation. A fourth form of resistance is insisting that the results of any evaluation be kept confidential, or disclosing them to the public in such diluted forms that no individuals or schools can be pinpointed as incompetent or ineffective. The last form is demanding that no remedial actions be based upon the results of evaluation systems - particularly that salaries and other types of compensation be entirely divorced from effectiveness of performance.

Teachers especially feared that favoritism and politics would inevitably play a great role in resolving the issue of merit and that as a result a counterproductive spirit of dissension, misunder-

standing, and suspicion would undermine the profession of teaching. Whatever justification existed for their fears of favoritism, it can hardly be doubted that part of their prophecy was fulfilled: low morale was experienced in a number of places where merit pay was tried out.[17] Moreover, there was a good deal of philosophical opposition on the part of teachers, along the lines of "who's to say what teaching excellence is?" and "teaching isn't like the business world; it simply isn't product oriented."[18] Finally, there was, on the part of some teachers, simple (and understandable) fear for their livelihoods. I have already discussed the bargaining advantages that many teachers and their unions have found in the single salary schedule. Many of these same teachers felt that merit pay was a subterfuge to avoid paying teachers better salaries.[19] In this connection, Curtis Garner's comments in "Nation's Schools" are worthy of notice.[20] Mr. Garner claimed that the real root of the difficulty in gaining teacher acceptance of merit pay plans was the low salary level of the profession. The struggle for decent pay had left many teachers in the lower echelons of salary scales wary of innovation, while teachers with higher salaries showed relatively little resistance to ideas such as merit pay.

Yet it would be quite wrong to think that self-interest corrupted the teachers' judgment. On the contrary, it would appear that their fears often cut to the core of merit pay's inadequacies. Ernest Dyson, writing in "The Clearinghouse" in 1964,[21] pointed out that the most certain way to succeed within a merit pay system was likely to be through compliance, conformity, and subjection

of real feelings. Instead of personal and professional growth, incentives were given for following a pre-ordained pattern. An atmosphere conducive to open experimentation was likely to be replaced by a rather closed one. The increased conflict in an administrator's role between counselor and evaluator was likely to show itself on classroom visits, when teachers could hardly be expected to air their doubts, questions, and problems as readily as they had when they had no merit pay rating at stake.

And even if teachers had had rather shoddy reasons for opposing merit pay, the mere fact of their opposition, abstracted even from its practical consequences, would have been a serious point against it. Zauen M. Mahdesian[22] wrote in May, 1970 that even if administrators in theory prefer merit plans to the single salary schedule, they should see the great practical advantage of having a pay scale (like the single salary schedule) that all their employees like. Any large business that pays on merit would be happy to have a salary schedule which was somehow acceptable to all its personnel, he said. But the real point goes even beyond Mahdesian's faintly paternal "if they're happy, leave 'em alone" approach; the real point is one of respect. There is a curious tendency in a portion of the writings on merit pay, and in a portion of the actual experiments themselves, to treat teacher opinion as little more than an obstacle to be overcome, or a wrong conclusion to be reeducated, or a superstition to be subverted or tricked. One finds this tendency even when the teachers are patently right. Thus, proponents

persisted in framing merit pay proposals in terms of rewards only, and in terms of money strictly added to the single salary schedules, when it was perfectly obvious to teachers that when some were singled out for merit pay, others were implicitly demoted, and that in the long term if not the short term merit pay had to affect adversely the amounts of money available for the single salary schedule. Anthony Downs has pointedly admitted that

> ...any competent evaluation of an activity carried out on a large scale like teaching in elementary and secondary schools, is bound to reveal that only a minority of those evaluated are superior in effectiveness. By definition, most will be rated as either average or below average. Thus, the majority have little to gain in terms of their own status and prestige, and perhaps quite a bit to lose.[23]

As noted in "Nation's Schools,"[24] it soon became clear that where merit pay plans were implemented some kind of percentage limit would eventually have to be placed on the numbers of teachers receiving merit pay, or the school districts would go broke trying to maintain them - which, as has already been pointed out, was a result very far from the minds of those who first put forth merit pay proposals.

Although interest in merit pay is very low, the problems which prompted its development are still with us. For the most, former proponents of merit pay are still rightfully concerned with the quality of individuals being brought into the teaching profession and the overall effectiveness of many of our school systems. In many ways merit pay is quite clearly a prototype

for the newest proposals that involve giving teachers systematic incentives to improve their productivity. These two proposals, differentiated staffing and performance contracting, will be discussed in the next section of this report.

VI. WHAT NEW INCENTIVE SYSTEMS HAVE BEEN DESIGNED TO INCITE PROFESSIONAL EXCELLENCE AND HIGH PRODUCTIVITY AMONG EDUCATIONAL PERSONNEL?

Differentiated Staffing

Differentiated staffing is the generic name for a wide variety of programs which are based on the premise that the ordinary, traditional classroom teacher performs a number of different roles, and that a better, more productive utilization of teaching personnel can be achieved by separating those roles, one from another, and assigning them to different personnel. Thus, the teaching staff of a particular school, or even a single classroom, is marked by specialization and a hierarchy of responsibility. Along with the hierarchy of responsibility, plans for differentiated staffing almost universally call for a hierarchy of rewards as well.

Differentiated staffing has grown out of two main streams of experimentation in education. The first of these is merit pay. The second involves a variety of efforts aimed at making the educational process, as it is presently known in our public schools, more flexible. Patrick Lynch and H. W. Handy[25] have cited the following currents in this second stream of experimentation: continuous progress programs, where instruction is sufficiently individualized for each learner to proceed at his own pace; team teaching, where groups of teachers teach blocks of students in large increments of time; educational assistant programs, where subprofessionals are trained to take over some of a teacher's clerical jobs; differential diagnosis of learners, almost a

necessity in a teaching program where objectives are different from those implicit in tests and curricula given by a body from outside the program; and new teaching and learning technology, of types much more sophisticated and wide-reaching than phonographs and film. All five of these currents lead to divisions in the role of the traditional teacher which would make differentiated staffing a potentially useful innovation.

The same school problems which prompted experimentation with merit pay likewise stimulated the demand for a more flexible classroom. Nevertheless most plans which involve a remodeling of the classroom landscape have a flavor distinctly different from the basic merit pay plans. Of the five currents mentioned in the preceding paragraph, a new teaching and learning technology is probably the most significant in the minds of many classroom innovators. Thus, Lynch and Handy, in the same paper that outlined these five currents, stated that "Specialization...will soon be forced upon us by the need to adapt to technologies such as instructional television, computer assisted instruction, language laboratories, and data processing equipment."[26] For a number of reasons this attitude, that we are bound to be forced around by our technology, is desperately wrong-headed. Among its numerous faults is the fact that it is the one attitude most likely to produce a climate of reaction, wherein technology of whatever potential will be indiscriminately smashed. Yet it is an attitude rather frequently found among classroom technology's most feverish advocates, tucked in amidst the mystifying language of inputs and outputs, hardware and software, goal maintenance and system

maintenance. One recalls Frank Spaulding and his strictly "scientific" talk comparing 5.9 pupil recitations in Greek to 23.8 pupil recitations in French. One wonders sometimes whether it is not possible to be a scientist, and yet still see that the issue of specialization may be so important as to force us to forbid its determination by a thing as empty and deadly as data processing equipment. Advocates of differentiated staffing frequently speak of the primacy of goal-setting: no program can be designed, they say, without first developing goals and clear objectives. If differentiated staffing is to have any chance of success at all, its advocates will have to be very careful to root out whatever tendencies they might have towards acquiescing to technology, and to put their high-sounding talk of goal-setting primacy rigorously into action.

A typical differentiated staffing program in skeletal form might have four different teaching positions. The nearest equivalent to the ordinary classroom teacher of today would be someone called a staff teacher. A staff teacher would need a B.A. and a certain amount of experience, and his or her salary range, with tenure, would be approximately that of the ordinary teacher under a single salary schedule. The staff teacher would take charge of classes on a day to day basis, and would have no responsibilities other than teaching. Below the staff teacher would be someone called an intern, or associate teacher. This would be someone with a B.A. or someone doing student teaching. The intern would assist the staff teacher in carrying out classroom responsibilities, but his primary purpose would be to learn.

It would be expected that most of these interns or associate teachers would be people in the first year or two of their teaching careers. Their salary schedule would be slightly below that of the staff teacher, and would have a low maximum. Directly above the staff teacher would be a position called "senior teacher." This position would require a master's degree and probably a good deal of experience. It might be expected that senior teachers would be chosen due to their high merit as staff teachers. Their chief function would be to implement the school's goals and objectives in the classroom, by introducing new curricula or teaching methods, by observing current curricula and methods, and by supervising. They would carry only 60% of the actual classroom responsibility imposed on a staff teacher. Their contract would be for ten or eleven months, and call for a salary range that approximates the range of the school's principal. The position would not carry tenure. At the top of the hierarchy would be the "master teacher." There would be relatively few of these, in comparison to the numbers of staff teachers, or even to the numbers of senior teachers. To become a master teacher would require a Ph.D., or a truly outstanding reputation, or both. The master teacher would be responsible for developing curricula and teaching methods suitable for use throughout the school, and for preserving the quality of existing ones. The master teacher would have 40% of the staff teacher's classroom responsibility. His or her twelve month contract would provide for salaries equal to the top ones in the school district's administration, but he or she would have no tenure. In addition

to these four basic categories there might be the traditional educational specialists, plus new ones for new educational technology, and people to do some of the classroom's strictly clerical jobs.

As an incentive system, differentiated staffing might thus work to give people within the profession the hope of earning more money and responsibility. Furthermore it might attract highly gifted individuals to the profession by demonstrating that teaching provides real outlets for their personal ambitions. Moreover the fact that senior teachers and master teachers would not receive tenure would give these most highly rewarded personnel a substantial incentive to stay on their toes. There is little doubt but that providing such incentives is an important motive in the minds of certain advocates of differentiated staffing. Thus, Lynch and Handy, while asserting that differentiated staffing "can never be used as a means to subtly ease merit pay through the back door," nevertheless admit that "only a reconstruction of teacher roles will permit overhaul of the reward system in an era of collective negotiations."[27] And Dwight Allen, the great pioneer of differentiated staffing, has cited as one of the reasons for developing and implementing it the fact that it offers a basis for salary differentials on which teachers and administrators might agree.[28]

Advocates of differentiated staffing have sometimes rather angrily pointed to the differences between their program and merit pay. Fenwick W. English,[29] former director of the Differentiated Staffing Project in Temple City, California, has written:

> The merit pay "mind-set" plagues discussions concerning staff differentiation. Even a sophisticated educational leader like Seldon.... does not recognize or choose to discern the variations in two essentially different strategies of renumeration. The first chooses to pay teachers differently because while both perform the same job, one on the basis of some kind of criteria and somebody's judgment (usually the administration), one does it better than the other [sic] and this determines the pay differential. Words such as "superior," "outstanding," "artist," or unfortunately "master," are the working labels of the merit pay approach. Thus, the person either "for" or "against" differentiated staffing reads into the concept of a teacher hierarchy these words, and envisions as inTemple City, for example, the "master" teacher as the "superior" teacher. Under differentiated staffing, some of the same labels may still be used and add to the obfuscation. However, functional separations as contrasted with meritorious separations are quite different. The former does not require a difference in actual staff utilization, the latter is almost a foregone conclusion because of the nature of role interrelationships within any organization. In differentiated staffing, the "master" teacher, or whatever name is applied, may not be the "superior" teacher for the same reason that the principal may not be the "outstanding" teacher. The jobs are different, requiring different training and on-the-job skills.

Mr. English's statement deserves some analysis. The degree to which it is true that the "master" teacher is not chosen because he is the "superior" teacher may be expected to vary from district to district, according to the specific staffing model implemented and the manner of its implementation. But it should be pointed out that advocates of differentiated staffing can't expect to have it both ways: the extent to which the "master"

teacher is truly not "superior," and the extent to which he is truly someone who differs from the staff teacher only insofar as he is a man with a different job "requiring different training and on-the-job skills" will determine in part the extent to which incentives for excellence and high productivity on teaching faculties will be diluted and possibly distorted into incentives for other things. To the extent that the "master teacher" has, like the principal, simply a different job from the "staff teacher," it can be expected that staff teachers will find incentives to develop the master teacher's special skills rather than his own, and that the most ambitious prospective teachers will try to equip themselves immediately with the skills of "master teachers." Unfortunately such incentives might give positions at the top of the hierarchy a distinct caste character which young teachers, just starting out, will view as hopelessly removed from their attainment.

Despite the protests of Mr. English and others, some opponents of differentiated staffing have in fact done just what Mr. English said they would do. Thus, David Selden. mentioned by Mr. English, made this presidential address to the 1969 convention of the AFT:

> The idea of differentiated staffing - separating faculty members into specialized functional and status categories - originated outside the governing bodies of the teaching profession - either NEA or AFT - and, it was thrust upon us without discussion or vote. Now we have to deal with it...We have avoided an outright negative response, but, at the same time, we have made it clear that we will not support the introduction of ranks into elementary and secondary school teaching. We consider this merely a device to introduce merit rating in disguise.[30]

Critics have also attacked differentiated staffing on many of the same grounds that were used against merit pay. In my own investigations[31] I found people saying that differentiated staffing led to class differences and an overemphasis on competition in a field where they shouldn't exist. Moreover there were many who expressed fears that the process in which teachers were evaluated for "promotion" could never be entirely free from problems such as favoritism, mutual "back-scratching," and divisiveness. Furthermore critics of differentiated staffing charge that "higher productivity" inevitably means higher costs. If school districts are unable to bear higher costs, then differentiated staffing programs will be chronically underfinanced, leaving schools with an overbalance of teachers in the lower paid instructional positions. Finally, as with opposition to merit pay, a significant portion of teacher and union opposition to differentiated staffing is based on fear for loss of prosperity and power; differentiated staffing may well undermine the feeling of strength in undivided numbers and mutual association with one's peers.

Although it has only been realized in theory, the "learning stage model" is one differentiated staffing program which is worthy of special mention.[32] The "learning stage model" is fundamentally different from programs which have actually been tried insofar as it is based on a fluid, rather than preformed, hierarchy. According to the "learning stage model" the faculty of a school is differentiated only in horizontal terms with regard to specific tasks. For instance, one teacher is a generalist,

another a diagnostician, another a specialist in curriculum analysis or a specific subject area, another a technologist in media applications, and so forth. Then a learning program is designed and implemented. Presumably the program is designed in stages, one task succeeding another. When leadership is finally assigned, that is to say, when a vertical hierarchy is created, it exists only for the duration of one task in the program. The vertical hierarchy may be changed with each successive task. If a learning program calls for a stage of intensive pupil diagnosis, then the diagnostician will be the team leader for that stage; if a program calls for a stage of learning prescriptions, a generalist teacher will be in charge. It would even be possible for "vertical" roles to be assigned according to personal aptitude or preference, regardless of professional role, if it occurred to the group that such an arrangement was apt for the moment. And most significantly, salary is fixed to the fluidity of the hierarchy. No teacher on the program team would have a completely set salary, or even a completely set salary range. There might be a total limit to the amount of money available for the whole program team, and there might be some amounts set aside to be distributed on the basis of experience or degree of specialization, and there might be minimums below which no teacher would be allowed to go; but nevertheless at least a portion of the pot would be distributed in accord with the decisions of the teachers as to who had contributed most to the program, regardless of role.

Implicit in the "Learning Stage Model" is a very interesting

critique of more conventional differentiated staffing programs, and their employment of incentives. One frequently hears supporters of differentiated staffing and other incentive systems describe themselves as the "wave of the future" bringing the benefits of modern management techniques to the outmodedschools. When teachers resist, they are accused of clinging to antiquated molds. Compared to the "learning stage model," however, ordinary differentiated staffing, with its rather rigid concept of incentives, is not as contemporary as its advocates claim. Business and industry is presently experiencing, at all levels, an increasingly widespread disillusionment with strictly hierarchical organization, and an increasing apathy towards the incentives of more money for more responsibility. Efforts are under way at all levels of business and industry to give employees and increased sense of freedom and wholeness in their work. Whether these efforts will meet with much success is uncertain. But at least the business world is aware of a serious problem and is trying to cope with it.

Meanwhile in education, theorists are only now getting around to proposing the kinds of incentives and hierarchies that the business world is worried about. Perhaps it should not surprise these theorists too much that teachers are by and large not too enchanted with institutional principles that are finally provoking disenchantment in the places where they have long been implemented. By comparison to previous differential staffing designs, the "learning stage model" is quite a progressive proposal. It takes cognizance of the fact that there is

increasingly widespread demand for jobs in which a person can feel that he has a genuine say in all that goes on around him, and that in his dealings with his colleagues he is not subject to the often stifling and unreal rigidities of preformed organizational charts.

The "learning stage model" makes the teacher an integral part of a progressive learning venture, a cooperative venture in which there is little room for hiding or sleeping behind organizational masks. The teacher, according to the model, is a partner who has a real say in decision-making, even up to and including the decision regarding his or her own salary. The model provides a dual incentive for the teacher: to excel in the eyes of his peers, who will know him well and have the obligation of evaluating him when it comes time to "split the pot;" and to excel in his own eyes because, working in a learning venture which he really perceives as valuable and progressive, his self-esteem leaves him little other choice. Of course this is a very idealistic formulation, and it would only be fair to point out that such an incentive could be claimed for almost any teaching scheme, provided the teacher really believes in it. But this objection fails to account for the fact that the "learning stage model" really does intend to make every teacher a part of the program's decision-making, as opposed to paying the customary lip service to that kind of notion. And it also fails to account for the fact that proposals for strictly differentiated vertical hierarchies and fixed pay incentives have met with little enthusiastic support on the part of teachers.

The "learning stage model" is a progressive proposal, and as such it stands at least a fair chance of enlisting the enthusiastic support of many young teachers. Moreover - and here is a factor which is unfortunately often neglected in these equations - it is at least possible that the school's pupils, who seem instinctively to prefer both the progressive and the natural, would feel happier in a classroom where the merits of a situation alone determined the deference of teachers one to another, than in a classroom full of managerial masks.

None of the foregoing is meant to deprecate the value of any experiments currently being conducted with differentiated staffing. At most, it is meant to suggest that some further experimentation with programs approximating the "learning stage model" would be appropriate. But every effort to employ differentiated staffing must be evaluated on its own merits. At this stage it is of far greater value to examine programs that have been put into actual operation than to examine programs which exist only in theory. This is especially true in light of the fact that in differentiated staffing - as with the other incentive systems - it is of crucial importance to examine the results of the program in light of the goals and objectives that were set for it. I alluded at the beginning of this report to the need of keeping goals in mind when talking about incentives. Many writers on differentiated staffing have similarly emphasized the importance of the goal-setting process. It just doesn't make sense to judge the efficacy of something so malleable in actual practice as differentiated staffing by any but the standards

set for it in a specific program. At the same time however, there are virtually no differentiated staffing plans that have been in operation long enough to justify any kind of confident and fair analysis concerning the extent of their success or failure. Therefore what follows will be a summary description of a few of the most well-established and interesting experiments in differentiated staffing, accompanied by whatever tentative judgments the specific experiments thus far permit.

Temple City, California

Temple City is a medium-sized school district in the Los Angeles metropolitan area. Of all the school districts in the nation where differentiated staffing has been tried out, perhaps no other district has received as much public attention. This is true, no doubt, because the Temple City project was developed with the active participation of Dwight Allen, the accepted pioneer of differentiated staffing. Temple City in turn became a pioneering school district.

The staffing structure in Temple City is quite similar to the typical differentiated staffing program already described. There are master teachers, senior teachers, staff teachers, and associated teachers. Their ascribed roles and salaries are quite similar to those already outlined. The starting salary for an associate teacher is comparable to the starting salaries for ordinary teachers in the school districts with which Temple City is in competition. The projected distribution of personnel within the hierarchy for 1972-73 is 66 associate teachers; 85 staff teachers; twenty senior

teachers; and four master teachers.[33] Teachers already employed by Temple City when the implementation of differentiated staffing began have been given the option of staying with the single salary schedule indefinitely, although once they transfer they are by and large not permitted to transfer back, and whether there will be much real room in Temple City for teachers electing the old schedule if and when differentiated staffing becomes a permanent and fully-implemented reality in the district is a difficult question.

Considerable effort has been expended in Temple City to devise procedures for the selection of senior teachers and master teachers which the rank and file of the faculty would consider fair and appropriate. Thus, the Selection Committee for Senior Teachers includes two teachers elected by their teaching staffs within the appropriate discipline, an outside University specialist in the discipline, the school principal, and the district's assistant superintendent of personnel. The Selection Committee for Master Teachers is roughly comparable. A candidate must apply in writing for any of these advanced positions. When everything else is equal, preference is given to Temple City staff; and when everything is equal among Temple City personnel, preference is given to seniority. For the transitional period, a "Certified Personnel Advisory Committee" has been authorized, an elected group of teachers whose function is to analyze and review disputes involving personnel.[34]

One of the more interesting features of the Temple City plan is the Academic Senate. Each school has one. Its members are

senior teachers (by subject area) and the school's principal, and it is designed to be the chief decision and policy making body in the school, supplanting the principal in many of his functions. Decisions on the Senate are by majority vote, and if there is ever a conflict between the Senate and the principal which either considers important, the conflict may be taken to the superintendent, or if the impasse remains, to a so-called District Senate. The Academic Senate is supposed to bring Temple City teachers into the very heart of power in each school, and put them in considerable control of their own professional destinies.

Lynch and Handy have said that the central goal in the Temple City experiment is individualized instruction,[35] and that may be taken to be the case. But it's interesting to note that the establishment of this goal was by no means the first conscious step in the planning of differentiated staffing for Temple City. Rather, the structure itself came first, or at least so it appears from the way Fenwick English, former director of the program, describes the matter[36]:

> In truth, the Temple City Differentiated Staffing project was born one December afternoon in 1965 on a napkin at the Blackwatch Steakhouse in Temple City. There Dwight W. Allen, then Associate Professor of Education at Stanford University, and M. John Rand, Superintendent in Temple City matched ideas on educational change...
>
> Dr. Allen took the napkin back to Stanford and began developing the concept with his associates.

And indeed it's very hard to discern exactly when this goal of individualized instruction was set, and when objectives were

set to meet this goal, and whether there were other sets of goals and objectives also operating. Fenwick English has compiled a "Brief Compendium of Major Events of the Temple City Differentiated Staffing Project, 1965-1970," which is in fact a six page list of month-to-month developments over the whole history of the program, and not once does it mention the setting of any specific goals or objectives.[37] It is to be presumed from all the circumstances that an important goal of the Temple City program was to measure the potential for differentiated staffing as a general organizational idea, rather apart from the specific learning goals which it was supposed to achieve for the Temple City district. There is nothing inherently wrong with such a goal, but it does make judging the efficacy of the Temple City project a little more difficult: differentiated staffing is best looked at not as a general organizational idea, but rather as it appears in specific responses to specific educational problems.

Regardless of ambiguity as to certain possible goals of the Temple City project, it is clear that hand in hand with the staffing pattern, Temple City took a number of other steps to fulfill its goal of individualized instruction. These included the introduction of team teaching, of variegated class sizes, and of fifteen minute time modules; the tearing down of certain classroom walls and the physical reshaping of certain classrooms; and the allotment, on the average at Oak Avenue Intermediate School, of forty percent of a pupil's day to "unscheduled time."

Lynch and Handy have made some criticisms of the Temple City

plan in light of its supposed goal of providing individualized instruction. For that purpose, they have said, the role description of the Senior Teacher in the Temple City schools is simply too diverse: "Performing as a skilled diagnostician, an expert in a subject area, as a 'learning engineer,' and a programmer of curriculum innovation, which is implied by the phrase 'application of curriculum and instructional innovation,' will simply be impossible if knowledge in its present state is to be applied skillfully to pupils."[38] On the other hand, say Lynch and Handy, the Staff Teacher's role is underdefined and remains that of a generalist: "Tying this position to 'classroom responsibilty' connotes a position rather than function and calls for no more skill than nearly all teachers now possess."[39]

Perhaps even more interesting than these criticisms, which speak only to the face of the proposal, are those of Stout and Burke,[40] who conducted extensive interviews in Temple City, trying to come to grips with the realities of the program there. Stout and Burke's findings often contrast rather sharply with the official Temple City line. Thus, Bruce Caldwell, formerly the principal at Oak Avenue Intermediate School in Temple City, has publicly described what a pleasure it was for him to be able to send out bulletins from the Academic Senate rather than from the principal's office; the teachers accepted such bulletins much better, he said.[41] But in their interviews with teachers Stout and Burke found that while the teachers conceded that they have a considerable voice in some kinds of decisions through the Senate, they nevertheless felt that they were allowed to operate

only within quite limited options allowed them by the administration. "This is manifest to them by agenda control, by a virtual monopoly of information among administrators, and, of course, by law."[42] Even the senators themselves seemed to feel that "their limits of influence are well-defined at a low level. ...For example, in our limited observation of senate meetings, perusal of minutes, and discussions with senators, we were struck with the virtual absence of discussion about purpose or major alternatives to reach those purposes. The senators were not making important policy decisions; they were embroiled in rule-making exercises."[43] Moreover the teachers interviewed by Stout and Burke were at once uneasy about their "lack" of information concerning the school's program (their general knowledge being "limited to vague declarations about such phrases as 'decentralized decision-making,' and 'senior teachers'"[44]) and "resentful about the enormous amount of 'stuff' which emanates from the central office."[45] Stout and Burke explained this paradox by saying that the teachers have very little sense of how information in their school reaches the decision process. They do not think of the Academic Senates as information processing and generating groups. They believe that matters of importance to an individual teacher are given to the principal and that "he does something about them." Finally, they

> ...see only a vague relationship between what they do and the nature of the program. Consequently most of the "stuff" which is produced by the central office is seen as serving the needs of those who produce it and teacher needs are ignored. They have no real sense of the immediacy of information

> Further, they are vaguely resentful of the presumed energy and money needed to produce the documents.[46]

Stout and Burke uncovered another source of dissatisfaction and cynicism, one quite central to the operation of the Temple City program. They found little agreement on the part of teachers with the administration's claim that in the selection of senior teachers and master teachers "maximum employee safety and fairness"[47] had been provided for. On the contrary, teachers, when queried, suggested only two bases of selection: that the people who traditionally "ran things" were selected; and that some people were thought worthy of the "senior teacher" positions because they needed more money. It must not be forgotten that teacher dissatisfaction with criteria and methods of evaluation has been the chief stumbling block for every kind of incentive program thus far proposed.

In light of the foregoing it shouldn't be surprising that Stout and Burke found considerable amounts of both apathy and resistance towards the program as a whole:

> There appears little impetus for change among teachers. The program has few advocates among respected teachers and not a few critics. Thus, passive resistance is a legitimate response. The teacher perspective seems to be more one of reluctant resignation than of eagerness or anticipation. They seem to have the attitude that because they are powerless, as a colleague group, to prevent its implementation, or for that matter the implementation of any program, they will go along. As a consequence, the older teachers believe that "this too shall pass" and the younger teachers try to adopt the symbols without the substance. Unlike some professional colleague groups who are arrogant in their confidence that they will consciously and overtly control policy,

> of acceptable cooperation with a set of conditions not of their own doing.[48]

Stout and Burke have keyed their hopes for a vitalization of the Temple City program on the senior teachers: "Perhaps more so than the Master Teacher, the senior teachers represent the major possibility for reform. To the extent that they have ability and resources they can open alternatives...Hypothetically they are positioned in the organization to do what no other person can do: they can translate the hard questions of purpose and in so doing raise the expectations of all teachers."[49] But it is at least possible that these "hard questions of purpose" could have been more clearly articulated, more fully discussed and more fully answered before the actual staffing plan was designed, and that had this been done the teachers' sense of detachment from the decision-making process and from the program itself would have been weaker than it turned out to be.

Williamsville, New York[50]

Williamsville is a suburb of Buffalo. The school district began experimentation with team teaching in the 1950's and a modified Trump plan was adopted in 1959. Its committment to differentiated staffing grew organically out of this experience. The goals of individualized instruction and continuous progress were goals of the district prior to any thought about differentiating the staff, and even the district's specific objectives were set before the process of changing staff roles began.

The pattern of staff differentiation in Williamsville is quite

(or "team leader"), teacher, student teacher, and teacher aide - but it should be observed that only one category - the master teacher, or team leader, stands above the position of ordinary "teacher," the position that presumably anyone with the appropriate credentials in their first full year of teaching would fill. Personnel are divided into teams,with one master teacher ("team leader") and three people from each of the other three categories on each team. The master teachers determine and evaluate educational outcomes, and along with the principal constitute an informal cabinet for decision-making. There is a good deal of informality and flexibility in the Williamsville arrangements. Team Leaders are selected by a collective process involving team members and administrators. Sometimes leaders simply evolve. In any case, their appointments are only for one year, and teams have been known to dissolve impromptu or to reorganize with somewhat different membership. Many important decisions are made by committees, many of them ad hoc, composed of teachers, team leaders and administrators. Such committees meet frequently to plan the implementation of change, budget allocations, the development of learning programs, the evaluation of students, and the like. A good deal of peer evaluation among teachers goes on, and administrators are also appraised. Appraisal is ordinarily based on behavioral objectives developed by teachers.

Williamsville's differentiated staffing program is not as "full-fledged" as Temple City's. Hierarchies are neither as large nor as firm as those of the California system. As an

productivity by holding out the possibility of advancement, Williamsville's program is weaker by far than Temple City's. Yet what has happened in Williamsville has much to recommend it. There is considerable vitality in Williamsville. Staff members do not unanimously praise the staffing program, but disagreement is open and accepted. The administration has tried to provide over-all support for the program, but there have been no efforts to purge dissent. And most importantly, it is the opinion of Lynch and Handy that conflict is not at all destroying the system or sapping its vitality.[51] If one looks for reasons for Williamsville's success, these factors come to mind:

1) the staffing program grew organically out of prior experimentation;
2) the adoption and acceptance of goals and objectives preceded the implementation of the staffing program, and has determined its gradual development;
3) the vertical hierarchy is informal and flexible, and articulated only to the extent that goals and objectives, by general agreement, appear to require.

Washington, D. C.

In 1970 Dr. Kenneth Clark, the well-known social scientist, and the Metropolitan Applied Research Corporation (of New York) delivered to the District of Columbia Board of Education a comprehensive plan for improving the Washington schools. The school board accepted the Clark report, and subsequently it

became known as the MARC Plan. The stimulus for the plan was the below norm academic achievement of low-income and low-status children in the District's public schools. The plan's goal is nothing less than educational excellence for these schools, so that the children of the District of Columbia will be provided, through their public schools, with "the highest quality of education that is available to children anywhere in the United States."[52] A wide range of change in the schools is proposed, including both administrative and curriculum reform. For grades K through 8, there is proposed an extremely heavy concentration on the teaching of reading, and hand in hand with this curriculum reform comes a recommendation for differentiated staffing. Nevertheless, it is important to observe the way in which differentiated staffing is put forth in the report. It is not that the objective of intensifying the teaching of reading naturally calls for a differentiation of staffing roles. Rather, the theory is that the ultimate goal of educational excellence itself calls for differentiated staffing. "Without question," states the report,[53] "if there is a single most important factor which determines success or failure in attempts to achieve the goal of educational excellence...it is the critical role of the teacher (underlining theirs)." Moreover, "At the heart of any serious program designed to attain academic excellence in the public schools there must be a realistic formula to reverse...[the] fact of low status for teachers,"[54] and "Essential to any serious program for the attainment of the highest level of respect for the teaching profession

are the following:...

> --Differential staffing and career development and rewards for teachers in terms of their training, ongoing objective evaluations, and demonstrable performance, as indicated by the academic achievement of their students."[55]

Thus, regardless of how differentiated staffing fits specific learning objectives, its implementation per se is of positive value for the public schools.

The MARC Plan embodies a highly articulated differentiated staffing structure. First there would be the para-professionals, and then the four commonly found positions: resident teacher (a teacher in his or her first three years, comparable approximately to Temple City's associate teachers), staff teacher, and master teacher; and then on top of all these positions would be the quite rare "Distinguished Teachers." In comparison to certain other plans, the salary rewards of certain of these positions seems pegged downward somewhat: a senior teacher is to get approximately what an assistant principal gets, rather than what a principal gets, and a master teacher is to get approximately what a principal gets, rather than what a superintendent gets. The superintendent's salary is reserved for the Distinguished Teachers. More than in most differentiated staffing plans, certainly more than in Williamsville or even Temple City, the different staffing designations are conceived of as ranks rather than roles. In fact, they are even spoken of as "ranks" in the MARC Plan, and virtually the only criteria set out for promotion to any of the various ranks are those based

to increase production and effectiveness promoted by the MARC Plan are stronger and more concrete than those of most differentiated staffing programs. But its strict ranking procedures and the absence of a demonstrated need for differentiation by role presents teachers with more reason to resist the implementation of the program and more opportunity to wreck it by apathy once implementation takes place.

Therefore it should not be too surprising that the MARC Plan has run into fierce resistance from the Washington Teachers Union. A paper entitled A Desirable Reality (a response to Clark's "A Possible Reality") appears to sum up the reasons for teacher resistance. The paper takes a number of shots at the Clark report's curriculum proposals (for instance, it suggests that reading shouldn't be overemphasized) but it saves its real salvos for the differentiated staffing proposals. It poses the following "questions:"

1. How can administrators who achieved their own positions not necessarily because of demonstrated ability judge and evaluate teachers fairly?

2. Did not Passow report his observation that the many good teachers he did find were largely unrecognized by their administrators and their peers?

3. Would not this plan encourage dangerous competition and rivalry and the currying of favor from those who will make the judgments?...

4. Would not parents ask that their children be placed in classes taught by "Senior" or "Master" teachers, rather than with "resident" or "staff" teachers?

5. Would not some teachers put undue pressure on children, or even "teach to the tests" in order to qualify for a higher rank?[56]

The rather shoddy innuendos implicit in the first "question" and rhetorical nature of several of the others might as well be ignored. The fact is that the union is forcefully opposed to the MARC Plan's notion of differentiated staffing. "A Desirable Reality" closes with the statement that the union would not even discuss the implementation of the Clark plan "because we do not believe that this report, as it now stands, offers any basis for the improvement of education in Washington, D. C., or anywhere."[57]

The MARC Plan has made very little progress in Washington. Resistance to it remains formidable. It may be that there is a substantial element of mere self-protectiveness in the union's stand, and it may be that the union has acted unreasonably at times. But one may also wonder whether resistance to the differentiated staffing aspects of the plan in particular would have been so heartfelt and unrelenting had the Clark report approached that issue in the manner that Williamsville, New York approached it, defining roles as specific learning objectives required them, allowing the idea of differentiated staffing to grow naturally out of simpler and more universally accepted innovations, softening the edges of the incentives to be offered. Even as the teachers union posed its five nasty "questions" about the MARC Plan's differentiated staffing scheme, it asserted that it would support a plan for horizontal differentiated staffing. Perhaps the Clark report would have done better to start with that more neutral ground, and to assert only its hope that if some form of vertical staffing appeared as the natural and

intelligent outgrowth of horizontal differentiation, then the vertical staffing would not be snuffed out for reasons alien to the important educational goals involved.

Performance Contracting

Performance contracting, as the term is now used in educational parlance, describes a plan whereby an individual or company, acting as an independent agent, contracts with a school district to teach students a certain well-defined subject area, as for instance, the skills of reading or arithmetic. The contract specifies how much improvement is guaranteed by the contractor, and part or all of the payment due the contractor is predicated on the students improving as much as the contractor said they would. The contractor sometimes uses personnel different from the regular teachers already employed by the school district, but sometimes he does not. Sometimes the contractor or contractors are the district's regular teachers themselves, and in this case the arrangement is called "in-house" performance contracting. Along with the related and sometimes conjoined scheme of giving incentives directly to students and instructional personnel, performance contracting is considered one of the most promising new approaches to the teaching of certain basic academic skills.

Martin Katzman points out that "the major tenet of performance contracting is that if school systems or contractors of school systems were paid on the basis of how much they taught the educational process would be more effective, efficient, and more progressive."[58]

Moreover,

> The presumptions underlying this tenet are that 1) the important aspects of educational performance can be measured reliably; 2) the impact of school resources on learning can be separated from non-school influences; and 3a) there exists a powerful educational technology that would be adopted under the proper incentives, or less strongly, 3b) a powerful technology could be developed given the proper incentives for invention and innovation.[59]

Perhaps to Mr. Katzman's list there could be added a fourth presumption, one so clearly at the very heart of his "major tenet" that it is likely he believes it doesn't need to be made explicit: strong, direct money incentives will move educational personnel to maximize their teaching efforts. In no other incentive plan considered in this paper are strong, direct money incentives of such central importance. Performance contracting is an effort to bring all the pressures of the business world's market place to bear on the teaching process.

As such, performance contracting must face several important technical problems. The first of these is that the incentives offered may serve as incentives not merely for high teacher productivity but for a number of unfortunate activities as well, activities which in fact serve to reduce teacher productivity: teaching to the test, making unreasonable demands on students (or teachers) without proper foundations, the breakdown of communications and sharing among teachers, and several others.[60]

Performance contracting faces a number of problems connected with the need to evaluate the accurately the amount of progress

in student learning that has been achieved. Presently standardized achievement tests are being used to measure student performance, but many objections can be raised to these norm-referenced instruments. The most fundamental of these objections is that student performance measured by norm-referenced tests may depend, in part, on variables outside the control of the classroom teacher; insofar as variations in these out-of-classroom factors may be considerable and irregular from class to class, it is argued that it would be unfair to compensate a teacher for his or her productivity without accounting for them.[61] Another objection to the use of standardized, norm-referenced tests is that they are likely to measure a different set of objectives from those set out by the local school district. In this vein, Jung, Lipe and Wolf have said, "an 'x' score on a published mathematics test may represent student performance on ten objectives, and just two of these may be included in the standardized test. Thus the single composite score yielded by the test would not be appropriate for measuring the success of the mathematics program in terms of meeting its objectives."[62] In addition, since standardized, norm-referenced tests are always published on the basis of national, or at best regional, norms, their formats ignore local cultural differences, and may therefore present unfair obstacles to many groups of children. Finally, scores of teachers over the years have complained that results on standardized, norm-referenced tests simply don't square with their personal, in-class observations of student achievement.[63]

In response to some of these difficulties, there has been considerable recent interest in the development and use of criterion-referenced tests, tests in which the items measured are derived directly from a well-specified standard of performance. The distinction is between tests such as these, which reflect directly what students can do, and tests which reflect how students compare with others.[64] One advantage of criterion-referenced tests is that they may considerably reduce the problem of teachers "teaching to the test:"

> Extensive tryout of items and standardization are not required, since the test acquires its validity primarily in terms of its relationship to the behaviors delimited by the criteria. Constant generation of parallel-item pool whose members represent the entire set of objectives for a course could practically eliminate efforts to "teach the test."[65]

However, Jung, Lipe and Wolfe have deferred to Klein in his analysis of a serious problem with criterion-referenced tests:

> To illustrate this point, let us suppose that a new course unit in 10th grade biology led to 30% of the students attaining all of the unit's 20 objectives, 50% of the students attaining 15 objectives, and only 20% of the students achieving less than 10 objectives. These results look very impressive and a school official might be very pleased with the effectiveness of the program. But would he still be happy if he discovered that most students could achieve 10 of these objectives before taking the unit, or that the criterion of attainment was 1 out of 5 items correct per objective, or that items used to measure an objective were not truly representative of the range of items that might have been employed, or that 80% of the students at other schools (having students of comparable ability) attained all 20 objectives using a criterion of 4 out of 5 items correct per objective? One expects that the school official would make a rather different evaluative decision

> regarding the program's worth had this latter information been available to him. Clearly, grade norms or other kinds of normative based data would help clarify the actual utility and significance of the program in achieving its objectives.[66]

One final complication to the whole problem of evaluating performance for the purpose of performance contracts, a complication which affects norm-referenced and criterion-referenced tests alike, is the widespread disagreement among cognitive learning specialists as to what constitutes a specific area of learning, and the widespread disagreement among testing experts as to w constitutes learning achievement. For criterion-referenced tests, it is not even easy to get agreement on what constitutes "essential" criteria for any given activity.

Evaluation problems aside, there are two further technical problems which may plague performance contracting. The first is inherent in the day-to-day administration of performance contracts. The observation of Bernard Bass has already been mentioned,[67] that in its use of incentive programs industry must be careful to make production goals and the degree to which they have been attained fully intelligible to the workers, lest "like animals stimulated into neurotic behavior by experimental manipulation," they feel that they have been punished for their inability to discriminate a correct response. The administration of performance contracts in schools is apt to be quite complicated, especially if incentives are keyed to rather frequent evaluations of student progress. Prompt and accurate accounting of such

evaluations must be provided, in order to prevent teachers from displaying disfunctional responses similar to those described by Bass. The second problem can be expected to occur in all educational experimentation, but perhaps especially in performance contracting. This is the so-called Hawthorne effect. The Hawthorne effect is the tendency of first results to show greater "gains" or "improvements" than can be expected from long-term implementation of the experimental program due to the initial burst of energy and enthusiasm which surrounds the experiment. The Hawthorne effect is likely to be especially strong in performance contracting because performance contracting involves very clearly laid out conditions, where the participants know right from the beginning exactly what they are striving for and how they will be measured.

None of these technical problems have been lost on the nation's teachers and their unions. Although their strongest single objection has been to the distribution of monetary rewards to teachers on the basis of student achievement on standardized tests, they have been vocal in recognizing all the problems. By and large their opposition is firm both to outside and in-house performance contracting. In addition to voicing technical objections, they have stated philosophical ones as well: the belief that the use of money incentives taints the learning and teaching process, the belief that money incentives will bring into the profession people who prefer material gain to the traditional educational values, and the belief that schools are and should continue to be "process oriented," as opposed to "productivity

oriented," institutions. Beyond both technical and philosophical objections, some teacher spokesmen have indulged in more than a little rhetoric on the subject. Thus, David Selden, before the convening of the 1970 AFT convention in Pittsburgh (which eventually passed a resolution condemning performance contracts), had these remarks to make:

> "There are various plans to run schools with structures different than ones we've traditionally used,...One of these is performance contracting,...an invasion of the responsibilities of teachers,...a pseudo-free enterprise... [involving] a lot of fly-by-night, newly created companies formed by people who've learned there's money to be made....It's not the well-established companies that are getting into this,...Most of the methods the contracting companies are using are ones the teaching profession discarded about ten years ago."[68]

But resistance to performance contracting has a rather different import for an experiment's success or failure than resistance to differentiated staffing. Unless a situation develops within a school district where considerable pressure is exerted for participation in a performance contracting experiment, it can be expected that the experiment's participants, having negotiated their contract and having entered into it of their own free will, will not harbor indifferent or negative attitudes towards its success. So with performance contracting, it is resistance from non-participants that is likely to be the main problem. One significant manifestation of such resistance might be the failure of a school district's in-house performance contracting experiment to attract sufficient participants. Since performance contracting is only feasible for subject areas which lend themselves

to objective evaluation (one can hardly imagine a performance contract issued for the teaching of English literature), it is unlikely that in the near future any in-house performance contracting experiment would call for a high percentage of a district's faculty. Nevertheless, should an experiment call for participation by a high percentage of the members of any single department, and should hiring outside help be unfeasible, the problem of "too few takers" could arise.

A second manifestation of resistance might be protest strikes from non-participants. There has been some strike talk from unions when the subject of performance contracting has come up, and of course it is a difficult matter to make predictions about; but nevertheless one can guess that the absence of direct relationship between a performance contract and teachers not participating in it, would make that kind of a protest strike rather difficult to pull off. The much more likely result of performance contracting experiments, and the result about which there should be greatest concern, is a deflation of morale among non-participants, a deflation which could cause losses of productivity in excess of any gains achieved through the performance contract.

Perhaps one constructive way of dealing with resistance to performance contracting would be to couple the presentation of performance contracting with the presentation of programs designed to propose or elicit new or improved teaching techniques, techniques which would be helpful in the fulfillment of the contract. Jung, Lipe and Wolfe have made this suggestion, and have given

reasons for it:

> There are no data of which the authors are aware to suggest that simply paying students or school personnel or school districts based upon gains in composite grade equivalent scores will result in improved educational outputs. This is certainly an empirical question open to verification by experimentation; in general, however, it has been suggested that the best results of using extrinsic incentives are likely to be obtained when potential participants have some idea about what they need to do to improve the skills defined by sets of student performance objectives. Therefore, all proposed incentive models have included some provision for pointing out to or eliciting from the recipient populations techniques for better achieving specified educational outputs. This seems far more important to the authors, as educators, than the determination of how monetary incentives will be used by target populations after they are earned.[69]

And Katzman's third underlying presumption about performance contracting, already quoted ("there exists a powerful educational technology that would be adopted under the proper incentives, or less strongly, a powerful technology could be developed given the proper incentives for invention and innovation."[70]), implies the same kind of suggestion. By giving teachers new techniques, the accusation of indolence and the command simply to work harder, both of which some teachers may find implicit in performance contracting proposals, wouldn't be nearly so strong. Of course teachers might still say, "We'll take the new techniques and forget the performance contracting." But in so doing they might at least be forced to perceive that they were begging a challenge.

Some Experiments in Performance Contracting

The Texarkana Project[70]

The first and most widely publicized demonstration of

performance contracting accurred in Texarkana (Arkansas District Number Seven and the Liberty Eylau district in Texas). Late in 1968 the local school district in Texarkana, Arkansas applied to the U. S. Office of Education for funds to conduct a dropout prevention program, under Title VIII of the Elementary and Secondary Education Act. The proximate goal of the program was to improve student achievement in reading and mathematics in order to reduce the likelihood of dropping out of school for academic reasons (at the time the dropout rate in Texarkana was about 15 per cent). The plan specified that the instructional program would be designed and operated by an outside contractor, who would be selected after a process of competitive bidding. Once selected, the contractor would be reimbursed on the basis of how much students achieved on the proximate goals.

The Texarkana school districts employed a "management support group," the Institute for Politics and Planning (a non-profit consulting firm in Washington, D. C.) to translate the program goals into specific objectives, to develop and circulate a "request for proposals" (RFP), to select a contractor from among the bidders, to negotiate the contract, and to supervise the evaluation of results by an independent consultant.

Of over one hundred firms which received the Texarkana RFP, about forty were interested enough to send representatives to a bidder's conference at which the performance contracting demonstration was discussed. In September, 1969, Dorsett Education Systems of Norman, Oklahoma, was selected from among the ten firms which eventually submitted written proposals.

Dorsett was selected on the basis of criteria which included soundness of instructional approach, cost, and past performance.

Dorsett set up "Rapid Learning Centers" on the premises of existing schools (some in mobile facilities, others in remodelled classrooms) in October, 1969. Unlike traditional classrooms, these centers were upholstered, carpeted, and air conditioned; they became fully operational in November of 1969. Dorsett's instructional approach involved the use of hardware (audio-visual display units) of its own design, specially adapted programmed instructional materials, and a method called contingency management (instruction based on stimulus-response theory in psychology).

The personnel for the project included one professional and one para-professional for each fifteen to twenty-five students. Dorsett hired professionals who were certifiable, although none of them had worked previously in the Texarkana public schools. In addition, Dorsett hired approximately twenty local teachers and administrators as project consultants.

As a dropout prevention project, the Texarkana demonstration involved approximately three hundred "potential dropouts" who were identified by several criteria: at least two grade levels behind in reading and mathematics, I.Q. of at least seventy-five, and low-income status. From the eligible pool of seventh to tenth graders, one-third were selected from volunteers, one-third recommended by guidance counselors, and one-third chosen by lot. Each potential dropout spent two of every seven class periods a day at the Rapid Learning Center.

Applying the performance contracting principle to students and employees, Dorsett attempted to institute an incentive system. Students could earn material rewards (such as green stamps, transistor radios, and a portable television) for meeting specified performance standards. Teachers, at one time during the project, were apparently offered stock options in the Dorsett firm. According to many of the participants in the project, however, the Dorsett incentive system suffered from management difficulties and never really functioned at a significant level, in spite of being singled out as one of the "revolutionary" aspects of the total program.

After initial glowing reports on student progress (e.g. "the average gain of fifty-nine students tested after five months of instruction was 1.4 grade levels in mathematics and 2.2 grade levels in reading") the operation of the entire project fell under a cloud with the revelation that Dorsett had been priming certain students with items taken directly from the post-test. According to strict evaluation standards, the contamination by Dorsett, in effect, invalidated the results of the entire project. At the end of the school year, the local systems did not renew their contract with Dorsett, and another firm was hired to conduct the second phase of the project.

Performance Contracting in Portland, Oregon[72]

During the period when the first Texarkana project was operating, another set of performance contracting demonstrations developed by Dr. James Holmes, was being conducted in the Portland,

Oregon public schools. These demonstrations were undertaken at local initiative with no Federal subsidy or involvement, and received none of the fanfare which surrounded the Texarkana project.

The Portland school system leased equipment and materials for a reading laboratory from the Audio-Visual Supply Co. (a dealer for Educational Development Laboratories) on a performance contract basis. One set of contractual terms specified that the Audio-Visual Supply Co. would receive no fee unless the student achievement rates were doubled. Local teachers, in turn, signed another performance contract with the Audio-Visual Supply Co., which guaranteed a salary of $900 per summer session, in contrast to the usual salary of $700. If students achieved below expectation, the Audio-Visual Supply Co. agreed to make up the difference between what the teacher received from the school system and the $900. If students achieved above expectation, the Audio-Visual Supply Co. would reap eighty per cent of the profits, the teachers twenty per cent. Under a second set of contractual terms, a single teacher and a group of five teachers negotiated performance contracts directly with the school system. The salary schedule was such that teachers would receive a salary slightly below regular scale if students attained at normal rates of progress, but a higher salary if students' rates of progress were above normal. The actual fee was based on the formula of $10 times grade equivalent months of achievement times a pupil weight (determined by the "difficulty" of the student). Dr. Holmes reported that

program, above normal.

Other Efforts in Performance Contracting

Activity in performance contracting increased enormously during the 1970-1971 school year. Most notable among the projects presently operating are those funded by the Office of Economic Opportunity, the State sponsored program in Virginia, and the locally financed program in Gary, Indiana. In addition, there are six contractor operated programs in Michigan which have received a good deal of encouragement and technical support from the State Education Department.

The multi-million dollar experiment in performance contracting sponsored by the Office of Economic Opportunity involves twenty school districts, six private firms, and two teachers' associations. Each of the private firms has been paired with three school districts; the contracts in the two remaining school districts were let to the local teachers associations. Although the overall goal of raising reading and mathematics achievement levels for low-income students is the same throughout the project and all of the contracting organizations are operating under fixed price incentive contracts, the instructional/management approaches of the contractors vary considerably. The "management support group" for the O.E.O. project is Education Turnkey Systems, Inc. of Washington, D. C.

The state supported performance contracting project in Virginia involves one private firm (Learning Research Associates of New York City) and eighteen schools in seven different school

districts. The program is aimed at significantly increasing student reading achievement; students are expected to grow a little more than one and a half years in reading ability during the period of the program. Learning Research Associates has accepted a fixed price incentive contract and will receive full payment for its services if students achieve at predicated levels or will be penalized financially if students do not achieve according to expectation. All teachers in the Virginia project are employees of local school districts but have received intensive training in the instructional/management approach used by the contractor. As with the O.E.O. experiment, Education Turnkey Systems is serving as the management support group.

In Gary, Indiana, the perfromance contracting project is significant because the local school system has contracted with a private firm to operate an entire elementary school. Behavioral Research Laboratories of Palo Alto, California is the private contractor for this program.

Since the instructional phase of the programs cited above have just been completed, no results are yet available. Education Turnkey Systems, the "management support group" which has dominated activity in performance contracting more than any other single group, is presently attempting to construct an elaborate "cost/education model" based on the experiments sponsored by O.E.O. and the State of Virginia. Hopefully this model will present much needed hard data on the cost-effectiveness of

A Proposed Experiment in Performance Contracting

In January, 1971, Steven M. Jung, Dewey Lipe and Peggy S. Wolfe submitted to the Office of Education a paper entitled "Study of the Use of Incentives in Education and the Feasibility of Field Experiments in School Systems." I have already referred to this paper several times. The main thrust of the paper is to propose a comprehensive experiment aimed at answering the following question: "are identifiable extrinsic incentives effective in producing significant gains over and above control conditions where extrinsic incentives are not offered?"[73] The proposed experiment seems apt for that purpose.

Jung, Lipe and Wolfe identify six basic models of performance contracting arrangements, two of which involve giving incentives to students and one of which involves giving incentives to parents. The three remaining models, and maybe a fourth, involve giving incentives to school personnel. Of these three, one is a competitive model, where the school board agrees to pay bonuses to individual teachers whose students achieve beyond some expected level; another is a cooperative model, where teachers as a group would be compensated for performance gains on the part of their classes; and a third is a group participation model, where teachers, the school administration, and the community would all cooperate to identify problems, and where incentives would be paid for gains demonstratively achieved through this approach. The fourth model involves giving incentives to para-professionals. Jung, Lipe and Wolfe intend

one location, and hope that in some sites a combination of models might be implemented, to see how models might work out together.

They believe that the strongest case for demonstration of incentive effects will be made "if incentive models at different sites with different subject populations produce similar positive results,..."[74] It is expected that at all sites only positive rewards would be used, since punishments are so much trickier to deal with. It is expected that, in accordance with the authors' observations quoted previously in this report, all models would include "provisions for pointing out to or eliciting from the recipient populations techniques for achieving specified educational outputs."[75] Further, in accordance with the authors' belief that a climate of confidence must exist in support of the notion that better education can occur, all models would allow participating personnel to draw advances against their incentives.

Jung, Lipe and Wolfe state in their introduction that recent events have stimulated serious interest in the use of incentives, as, for example, through performance contracting, to improve academic performance. "Central to these events is the belief that the educational programs of the past decade have not produced impressive results and have especially failed the so-called 'deprived' student."[76] Thus, their proposed experiment focuses on children who are behind their age/grade peers in academic achievement. They propose that 1800 students be selected at each site, half to be put into an incentive program, half to be used as

participants. A single contractor would be found to set up, monitor, and evaluate the models at all sites.

The authors propose three funding options for the experiment. The first involves a combination of federal, state and local money. The local district would handle teachers' salaries, instructional materials, and the like; money for incentives would come either from the district or from state-controlled federal funds, granted under Title I, III, and maybe VIII of the Elementary and Secondary Education Act of 1965; the federal government would directly pay for the costs of the contractor hired to set up, monitor, and evaluate the model. The authors are probably right to consider this arrangement a little awkward. The second option is much the same as the first, except that the costs of setting up, monitoring, and evaluating would come from the states, under the ESEA acts. This would reduce funding authorization problems, in the authors' opinion, but would probably fragment the experiment into a little group of self-contained ones, each with its own monitors and evaluators. The third option would have the federal government pay directly for both the evaluating contract and the incentives, the latter costs borne by ESEA Title III. This option would result in better coordination of efforts than any of the others, and would also presumably make the experiment more attractive to certain school districts, since it would mean that they wouldn't have to go to their state education agency with proposals and the like. How difficult it might be to obtain school districts of the type

1971, Dallas, Texas; Mesa, Arizona; Portland, Oregon; Shikellamy School District of Sunbury, Pa.; and Wethersfield, Connecticut had already expressed interest. Dallas, Mesa, and Portland are already rather well-known names in the field of incentive systems.

One last note, which suggests the good sense that permeates much of this report, deserves mention. The authors close by suggesting that pains be taken to prevent premature publicity from spoiling the worth of their experiment. "Overinflated claims and misinformation"[77] have all too often accompanied efforts to test new incentive schemes. A few of the most interesting efforts - Williamsville, N. Y. and Portland, Oregon, for example - have eschewed it, and in educational terms they have been greatly rewarded for doing so. Their examples should be followed.

VII. CONCLUSION

The present pattern of rewards and punishments, dominated by the single salary schedule, is not adequate for the nation's schools. It discourages many of the brightest and most ambitious young people from entering the teaching profession, and it encourages many of the best teachers to leave the profession, either by retirement or "promotion" into administration. Those weak incentives which it does provide are to incite behaviors whose benefits for the educational process are arguable at best: taking graduate courses which often need not be strictly relevant, and, for the least ambitious, staying on in the profession. It is acknowledged that the schools are in some kind of "crisis." They cannot afford, in these times when new and far-reaching goals and objectives have to be set, professional teaching staffs of less than the best capacity for, and devotion to, the tasks at hand.

New incentives systems have been proposed as remedies, and the question of their adequacy arises. The answer to the question, it seems, is that they have great potential, but that in the forms in which they have been proposed, that potential is unlikely to be realized. The incentives for teaching excellence and high productivity are much stronger and more direct in these new incentives systems than they are under the current single salary schedule: differentiated staffing offers more money and more responsibility as reward for a range of

for getting students to perform well on selected tests. These incentives are designed to attract an unusually bright crowd of new people into the profession, and to revitalize some of the older teachers.

Insofar as the new incentive systems are supposed to work by inciting teachers to certain actions, the key to their success or failure must be sought in the formidable opposition which teachers have already mounted to the implementation of these systems, even on an experimental basis. Teachers by their resistance killed merit pay as a viable innovation, and they have the potential to kill other schemes as well. Strikes and sabotage are, in the long run, their lightest weapons. Heavier is their power to let the new incentives incite them to all the wrong things - teaching to the test, et cetera. Heavier still is their power to let low morale seep into all their professional conduct.

It would be not only cynical but wrong for advocates of incentive systems to hope or suppose that their new plans will bring hoardes of ambitious youngsters into the profession, and drive out the bad old opponents of their schemes. The latter will probably leave only in the normal numbers, and the former at any one time will remain only a fraction of the profession. The traditional differences of opinion between the generations can be expected to be accentuated somewhat, but it will probably remain true that within a fairly short stretch of time many novices will be indoctrinated into the basic views of their professional colleagues.

The opposition of teachers to the new incentive systems is ordinarily articulated on a technical level. They complain about the inadequacy of evaluative procedures, and in particular, about standardized tests. There are genuine problems here, concerning both the accuracy of the tests and the narrowness of the notions of productivity that are bound up in them. Advocates of the new incentive plans sometimes get annoyed by complaints about the latter, because teachers have also found fault with the idea of principals coming in to evaluate them, as happened in merit pay. Nevertheless, both problems must be dealt with. The problem of accuracy must be dealt with not only by better standardized test design, but by having the tests used in an incentive program measure only the achievement of the program's objectives, no more and no less. The narrowness of the notions of productivity embodied in standardized tests must be dealt with by assuring that the incentives systems using the standardized tests are limited in their application to those learning areas where narrow notions of productivity are apt. In other words (a blatant example), the promotion of a teacher of fourth year English literature must not depend on his/her students' answers to a multiple choice identification test. If an incentive system is to rely on standardized tests, the incentive system can only be used in learning programs where the educational goals and objectives can be measured by such tests. The goals must determine whether or not an incentive system is used, not the other way around.

On top of their technical complaints, teachers often erect a super-structure of philosophical resistance to incentives programs: teaching isn't like business, it isn't product-oriented, et cetera. This too must be taken seriously. Is teaching what these teachers say it is, and ought it to be? Analysis of these questions may lead to some yes-and-no, half-and-half answers, which are about all that can really be expected for philosophical questions. It should be possible to find certain things in education that are not product-oriented, and also certain things that are. Those that are, as, for instance, the basic skills of reading and computation that are at the very heart of the current crisis in many schools, might be able to use incentives systems, whereas those that are not product-oriented probably could not. Performance contracting may tend naturally to sort out these two types of learning areas better than differentiated staffing, because performance contracting must rely on standardized tests, which by their nature can only measure rather product-oriented skills (however, as mentioned above, abuse of standardized tests must be guarded against). Differentiated staffing needn't rely on standardized tests, and therefore in a system which allows itself to become rather more rank-oriented than role-oriented -- the MARC Plan as opposed to the Williamsville operation -- there is a danger that quite intangible qualities will be measured in a product-oriented way. The Clark report used the university analogy of instructors, assistant professors, associate professors, [illegible] to build up its argument for ranking teachers in areas

that aren't product-oriented, but in view of the widespread discontentment with university hierarchies these days, most of it originating inside the universities, it seems unwise to give this analogy much weight.

Below both of these levels of teacher opposition, advocates of incentive systems see a kind of netherworld, a world of base, selfish motives, which many of them suspect are the only real reasons for teachers' resistance. It's all but impossible to say whether this is true, but if that's how proponents feel, it would be well for them to give the closest possible scrutiny to the teachers' "selfish" opposition. On the one hand, teachers, like many of those married women of Portland, Oregon, seem not to care about the money available in incentives. On the other, they seem to believe that incentive schemes are tricks to avoid paying them more money. Are there good reasons for either of these apparent beliefs? Could there be good reasons for both? The answer seems to be yes.

It is not too difficult to see how, when measured against the educational values they cherish, teachers would find those money incentives which might lead them to abandon them inadequate. That would be nothing more - nor less - than professional devotion. At the same time, teachers of course need and want money, and would be resentful of a plan which claimed to offer them more of it when in fact it didn't. In industry, there may be cases where incentive systems offer more total money to all workers, over the long term, due to higher productivity; and in some cases, advocates of incentives in education may have

led teachers to expect the same, as when pure bonuses have been set out to lure teachers into participation in an experiment. But, in fact, few can doubt that a chief allure of incentive schemes for administrators is an increase in productivity achieved within the confines of budgets, which, in the coming years, are unlikely to grow at any more than a very slow, steady pace. Thus, all that's really being offered by the new incentives systems is the same old pot, divided slightly differently. That no incentive plan when it is implemented actually reduces anybody's salary for the moment, is a matter of sheer political expediency, perhaps expedited by some temporary outside funding. In the long run, in fact, it may well be that the teachers' pot will expand more slowly than before, because the incentive plans are likely to divide and weaken the teachers unions.

Advocates of incentive schemes must face up to the fact that teachers know there's no "pot of gold" in incentive schemes. They must take care not to present them as if there were. "But what then can they offer?" one may ask. "Wasn't that the whole point, to hold out to teachers the possibility of more money?"

The answer is, "No, that isn't the whole point." The whole point is that only those who earn more by their contributions get more. And there are other things which advocates of incentive schemes can offer. This paper has already cited examples of teachers who have foregone money for higher purposes, e.g. the Portland teachers who turned over their bonuses for better reading materials. Any person who has had substantial contact with the teaching profession can cite many others, known to him personally.

By and large, the profession is marked by high levels of dedication, and teachers' capacity for self-sacrifice is considerable, if educational purposes worth sacrificing for are presented to them.

Here is the key to what incentive systems have to offer: instead of saying to each teacher, "Here is something we will do for you, an opportunity for you," it would be preferable by far to say, "Here is something which must be done for the profession as a whole, and for the children, and you alone can help us." This is of course not a new approach. When Kennedy came out with "ask not what you can do for your country," he hit a mood in the country, a responsive chord. Of course this kind of approach won't work if it's just a trick, if sacrifice is demanded for purposes that are unworthy of sacrifice, and are seen to be unworthy. But this needn't be the case here. Surely the whole profession is aware of the crisis in education, the phenomena of apathetic and demoralized schools, of children not learning. It is not too strong medicine for teachers to be told of the need for highly talented newcomers, nor is it too strong medicine for them to be told that there is a need to stimulate a percentage of themselves. But it is imperative that teachers see the specific goals and objectives for which their sacrifice is asked, and that they believe in those goals and objectives, and believe that their sacrifice will contribute something towards their attainment. The "crisis in education," and the way out of it, must be brought down to the context of the local community and of the individual teacher. The setting

of local goals and objectives must precede the demand for incentive programs, and must call for them as of necessity.

Every aspect of teacher opposition leads to the same conclusion. It is a lesson which might have been learned from scientific management, and yet was not entirely. Institutional memories can sometimes be quite short. There are still incentive programs designed to "shake teachers up," which yet lack any clear goals that the shake-up is supposed to serve. And there are still incentive programs whose goals simply can't be served by the kind of shake-up the incentive programs provide, and programs whose goals require teaching or evaluative techniques that have not yet been developed sufficiently to make the goals feasible.

One should consider the "learning stage model" again. It is a theory which admits that there is no need for hierarchies or special rewards until a specific learning situation calls for them. One should consider also the experiments in Williamsville and Portland, where incentive programs developed organically out of efforts to deal with specific learning problems. There are lessons in these models. Differentiated staffing programs should differentiate personnel only out of need; performance contracting programs should make sure that specially designed techniques are available for teachers attempting to meet specially designed contract objectives.

Few would doubt that the greatest incentive for teachers to excel is, as it is for most people, the sense that they are embarked

sense divides good teachers from the mediocre. Those who advocate the implementation of incentive programs probably wouldn't disagree with this. Rather, they might simply point out that inducing such a sense of venture is very tricky business. They might suggest that the obvious way to start would be to think of specific ways to improve the educational process, like differentiated staffing and performance contracting, and hope that the improvements elicit the appropriate strong commitment. The flaw in this suggestion comes in the very nature of differentiated staffing and performance contracting: they act on the teacher, rather than directly with the teacher. Therefore they bear a considerable capacity for alienating the teacher from any sense of venture that might be present, rather than bringing him or her into it. This alienation must not be allowed to happen, because differentiated staffing and performance contracting are too promising. It will not happen if teachers see that the programs are truly and wisely tied to manifestly important goals and objectives.

Differentiated staffing and performance contracting really could provide a new spirit of bold and important venture in older teachers, and help preserve such a spirit in the young. When that spirit exists, it is conveyed directly to the students. And learning becomes a more natural thing.

* * * * *

There are a few last considerations that merit reiteration. First, advocates of incentives programs could in some cases show

programs' subjects. Such respect involves, on the one hand, rooting out all remnants of the attitude that teachers' opinions are merely obstacles to be overcome; and, on the other hand, deleting from the writings on the subject much of that mystifying language of "science" which all but defies the average teacher to figure out what's being said. Second, implementers of experimental programs should eschew publicity at all costs, since publicity is bound to complicate the delicate in-school political maneuverings which implementation seems almost bound to necessitate. Third, all personnel involved in an incentive program experiment should take great care not to fool themselves about any aspect of their program. They must not fool themselves into believing that no teachers will feel punished by failing to be rewarded. They must not fool themselves into believing that institutional forms such as Temple City's Academic Senate will necessarily perform in reality as it was designed to on paper. They must not fool themselves into believing that first results can prove an experiment's success.

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